

Col. Richard S. Leghorn
(United States Air Force Reserve)



tells—

HOW NUCLEAR WAR MAY BE FOUGHT

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by Col. Richard S. Leghorn

The thesis of this article is that the President of the United States should consider announcement of the following policy:

"If any of our allies or the United States itself is attacked by an aggressor with conventional armies, the United States will punish the aggressor by using tactical nuclear weapons to destroy his attacking units in the battle zone and the military installations in his immediate rear areas.

"If any such aggression is supported by conventionally armed aircraft, the United States

will punish the aggressor by hot pursuit in the air and nuclear attack on his air bases.

"If the United States or any of its allies are attacked with nuclear weapons, the United States will use nuclear weapons to destroy instantly and utterly the nuclear stockpiles of the aggressor and the nuclear delivery capability of the enemy.

"The United States unilaterally renounces H-bomb and A-bomb attack on hostile cities, unless the cities of the Free World are first attacked with weapons of mass effect."

First: GROPING FOR A MILITARY POLICY

SOVIET AND CHINESE IMPERIALISM and the fundamental clash between Communist doctrine and Western political philosophy today present the United States and the Free World with the gravest challenge we have ever faced. The years since World War II have witnessed the West coming to grips with this challenge. A decade of cold war has been a frightening experience as we have struggled to meet first one onslaught and then another with improvised policies.

Since the Soviet threat was publicly recognized in 1946, we have examined and rejected as national policies the extremes of peace-at-any-price, and preventive war. We toyed with the idea of "Fortress America." We found containment

too negative and liberation premature. We are now pledged uncomfortably to peaceful co-existence.

Although remnants still appear, we early discarded the peace-at-any-price thinking of appeasement and unilateral disarmament. Horse sense and experience have taught us that the only way to deal with an aggressor is by marshalling strength and displaying a will to use it. Preventive war, the other extreme, continues to be advocated in one form or another, particularly by the militaristic—though not by our military leaders. The Fortress America concept was quickly labeled as Maginot Line mentality and was short-lived; it is a vestige of isolationism, whose spirit lives on among national-

No Need to Bomb Cities to Win War

ists and go-it-aloners who would like to believe we can substitute a defensively fortified America for the earlier, natural isolation of our ocean-bound continent.

Containment was the initial response to Soviet expansion. But containment was a reaction, it was negative and therefore frustrating as a long-term policy. It left the initiative with our opponent. It led us to abandon captive peoples behind the Iron Curtain and embrace the status quo on our side, regardless of how incompatible it may have been with our concepts of democracy and just rule.

In early 1953 we had a premature burst of enthusiasm to do more than take a negative approach, but we found that liberation called for too much initiative, too soon. Bold action, even by non-military means, was feared by our allies to invite Soviet atomic blows. This fear was unrealistic since destruction of the U. S. and exploitation of an undamaged and enslaved Europe constitute the logical Soviet objective. Nonetheless, it was a political fact.

Next we flirted with peaceful co-existence. This is a strange concept for America, not only because it was Lenin's label to denote a period of Communist consolidation before the next advance. In the first place, it implies that war can be avoided. As recently pointed out by Sir John Slessor, war with the Soviets cannot be avoided, only prevented—which is quite a different thing. Peace is not achieved in a community of nations just because everybody believes it desirable. War must be prevented, peace sought actively.

Peaceful co-existence implies there is no need to act to enforce the peace—that the community of nations is somehow different from other communities of human beings. Second, this concept implies that we can relax and forget the declared Soviet ambition to dominate the world, for which they continue to arm and agitate while endeavoring to conceal their aim with the big lie of "co-existence" propaganda—sheep's clothing for the Soviet bear. Third, peaceful co-existence pretends that evil is not there, and obliges callous neglect of those whom misfortune has imprisoned under the yoke of Soviet tyranny. Peaceful co-existence is a false step in attempts to find a satisfactory course between containment and liberation.

The policy I propose we consider is the pursuit of enforced competitive peace. Two operative ideas are embodied in this concept. The pursuit of enforced competitive peace implies a coordination of force and positive political competition. Deterrent force can prevent aggression, anywhere on the globe. Thus protected, we can wage political competition against Communism.

The enforcement of peace is a long-acknowledged task of human society. The problem is no different between nations than between individuals. Public peace has always been main-

tained by the exercise of punishment. Peace is best maintained when punishment fits the crime and when punishment is well-known beforehand to any who might consider violating it.

Until international authority is empowered to inflict adequate punishment to enforce world peace, nations must join together to meet the problem through systems of collective security. With its nuclear plenty and dynamic economy, the United States is the strongest member of the Free World. We have begun to accept our broad responsibilities and recognize that we must lead the Free World in the enforcement of peace, until the day when a freshly constituted international authority has authority commensurate with that responsibility.

The competitive spirit is psychologically appealing to Americans and is compatible with our instinctive competitiveness; we would relish competition with the Soviet test of which system can provide the best economic and moral climate. Out of enlightened self-interest, analysis on the competitive aspect would impel us to our support of reform movements in Africa and Communist Asia, and to identify ourselves with the aspirations of peoples instead of regimes, as has been necessitated by emphasis on containment at any price.

The pursuit of enforced competitive peace enables us to take the initiative. It is a policy of containment only in tactical respects; it is affirmative in a political sense. It identifies vulnerable spots behind the Curtain, and in some cases, brings non-military pressures to bear. In practical terms, we can extend to all oppressed peoples a warm welcome to join the Free World.

Long-term competition under conditions of enforced peace can bring changes behind the Iron Curtain. Concealed Marx, Communist doctrine has undergone major revision under Lenin and later under Stalin. The Malenkov line is now at hand, and there is no reason not to expect further adaptation. Forever faced with our deterrent force and competitive strength, Soviet policy can be compelled to re-examine the premise that capitalism must collapse, and its objective of world domination.

To achieve these aims, the United States must rely on its own power. Insofar as possible we desire to support this power with the collective strength of like-minded nations. It may be our desire eventually to transfer to international authority the responsibility for and control of the means of enforcing peace.

But consider first what we face in efforts to enforce peace. What does conflict in the nuclear age mean and how prepared are we to prevent it?

Second: ANOTHER LOOK AT DEFENSE

I. The Facts of Nuclear Life

AMERICANS ARE WORRIED AND UNEASY. One swift decade has seen war's destruction measured successively in tons, kilotons, and megatons. In nuclear war, names on casualty lists will be replaced by estimates in megadeaths. The measure of human anguish in war has been multiplied one million times.

As we learn more and more about the H-Bomb, new aircraft and guided missiles, and Soviet successes in military technology, we realize our security is shrinking. The cost of adequate defense mounts as the armament race intensifies. Short of surrender and without recourse to preventive war, is there no end to this trend toward less security at higher cost?

In the face of our difficulties, it is useful to examine the salient features of the current military situation.

1. The Soviets have nuclear sufficiency.

They have a quantity sufficient, in case they choose their weapons in this manner during World War III, to destroy so many of the population, cultural and production centers of the West that we would lose, whether we win or not. The Soviets, who to date have announced experimental explosions plus a series of further tests reasonably be presumed to have a few hundred bombs—they will have more tomorrow, hydrogen and atomic bombs—hundred assorted modern bombs on target can knock out half of U. S. industrial capacity and tens of millions of persons. The 100 largest cities of the NATO powers in W

Europe contain one quarter of its population and a greater fraction of its industrial capacity. Two hundred bombs on city targets would destroy the Western world.

2. The U. S. enjoys nuclear plenty.

We have enough to satisfy not only all military needs, but also enough to begin a major program to develop atomic resources for peaceful use. It was publicly reported some time ago that the number of bombs in the stockpile would not be many years in reaching five figures. Since then new techniques have been announced which enable us to make more bombs with the same amount of nuclear materials. In a war, we are very likely to find ourselves more limited by the number of aircraft than by the number of modern explosives. They vary in size from artillery shells and kiloton A-bombs for fighter bombers to the reported 20 megaton blast of our present H-bombs. These weapons can destroy any surface target—an air base, a capital city, fleets of ships, troops in the field, and some targets buried underground. There is almost no limit to the type or number of targets we could destroy with our stockpile.

3. Nuclear weapons systems are cheap.

It is much cheaper to accomplish a given amount of destruction with nuclear weapons than by conventional means of war. It has been estimated that the cost of killing urban populations with nuclear weapons is incredibly cheap, just a few dollars a death. It is also very cheap to destroy factories or military targets with nuclear power.

Dividing the total annual budgets of the AEC by the presumed number of bombs produced, we find a cost per bomb of the order of a million dollars. While these explosives are expensive themselves, very little of the cost of a military weapons system is in the shell or bomb—all but a very small fraction of the cost is in the military unit that will deliver the explosives, and in its supporting supply system. We can recall that it took 330 billion dollars in four years in World War II to deliver the 2 megatons of high-explosives expended by the United States—or roughly 15 billion dollars to deliver 100 kilotons, the blast on one small-size modern weapon. Today 15 billion dollars annually will maintain a large, modern Air Force, which can deliver many thousands of larger nuclear blasts in a few days. Thus, even considering the effect of conventional bomb dispersion, we can say that to accomplish a given amount of destruction, nuclear fire-power is many times cheaper than conventional fire-power.

There is neither in being nor in view any satisfactory defense against nuclear air attack.

If the Soviets chose to use nuclear weapons against Western European cities, they would have an easy time of it. Recent appearance of their equivalent of the B-52 bomber, and prospects for air refueling their growing fleet of medium bombers, are ominous indications of what they might be able to do to important U. S. targets today and will certainly be able to do tomorrow. Strategic planning must recognize that the Soviets are no longer range-limited. Former Air Secretary Finletter estimates they will be able to deliver a mortal blow next year.

The late General Vandenberg announced two years ago that at best the Air Force could shoot down about 30 per cent of attacking aircraft. Even if the billions since poured into air defense have realized the hopes of scientific and military planners and doubled the batting average, one in three enemy nuclear bombers getting through to target is a suicidal prospect. This amount of air defense for our cities and military bases is mandatory for partial protection and as a supplementary deterrent, making attack difficult and expensive for

the Soviets. But we cannot expect air defense to save America in the face of determined Soviet blows. At best, our improved radar-fighter screen only doubles the price of success to the Soviets.

Even more ominous is the IBM, the intercontinental ballistic missile, which returns to earth from the outer atmosphere with a velocity approaching that of a meteor, about 20 times the speed of sound, and against which a defense has scarcely been dreamed of. Ten years ago, the Germans were firing against London V-2 ballistic missiles with a range of a few hundred miles. They had thousand-mile missiles on the drawing board. For almost a decade now the Soviets have employed some of the same research facilities in East Germany and also the services of many German scientists and engineers. We can no longer afford to deprecate Soviet skill in military technology, as their development of the MIG-15, the A-bomb, and the H-bomb attest. It would not be illogical to assume that with this scientific head start from East Germany, plus their own historic interest in rockets, the Soviets have given priority to this intercontinental missile in the expectation that if successful, they might essentially skip the long range bomber stage in intercontinental weapons development. We were only four years ahead of the Soviets with the A-bomb and ten months with a thermonuclear explosion. It is very possible that we will lose the IBM race, whose conclusion is only years away.

When the Soviets successfully engineer this near-absolute weapon, our elaborate and costly radar-fighter screen will not be effective against it. Faced with hydrogen-headed missiles of meteoric re-entry speed, our cities will be virtually defenseless.

A further threat, emphasized by Attorney General Brownell and FBI Director Hoover in a nation-wide warning, is agent delivery. Covert attack might add to the seriousness of mass attack from the air.

There is also the menace of nuclear missiles launched from submarines. Against this form of attack, anti-submarine defense, as in the case of air defense, can at best only increase the price of success to the Soviets.

As for dispersion of population and industrial centers, Messrs. Cooper and McKean have recently itemized in *Fortune* the reasons why dispersal is of such questionable value. Against fall-out from a major hydrogen attack, defense is extremely difficult. While we must take all practicable steps including evacuation to save American lives, and must increase the cost of attack to the Soviets, no physical defense can provide adequate protection. More vital to the protection of our people is the ability to destroy Soviet nuclear weapons systems at their source in the USSR.

These are the four salient features of today's defense situation—Soviet nuclear sufficiency, U. S. nuclear plenty, the cheapness of nuclear weapons systems, and the impossibility of achieving acceptable security with any physical shield against nuclear air attack.

II. The Defense Problem

WITH THE FACTS OF NUCLEAR LIFE in mind, it becomes clear that a war of obliteration cannot produce victory in any real sense; both sides would lose formidably. Military action alone cannot bring victory in cold war. Yet without sufficient military strength we would lose in cold war. The only hope of gaining on Communism and Soviet imperialism is through nonmilitary action. You can't kill an idea with a pistol. But how do we get the military security that alone will free us for non-military action?

The defense debate so far has been chiefly concerned with military forces. What military units will give us more security



U. S. TACTICAL ATOMIC WEAPON
"We can bring our nuclear plenty to bear"

—Department of Defense

at less cost? More air wings, more divisions, supercarriers. Should we concentrate on "air-atomic power" or have balanced air, naval and ground forces?

Such discussion has not yet resolved the issue. It never can. Until the security issue is thrashed out on the level of strategy—strategy for acceptable security in the long term conflict with the Soviets—we shall never have the answers. The type of military forces needed can be settled only after the grand strategy issue has been resolved.

We now attempt to straddle two national strategies, neither of which is satisfactory, instead of evolving a clear course of action clearly shaped to the need.

On the one hand, we rely on our capacity for instant Massive Retaliation at times and places of our own choosing. In the absence of any clarifying statements as to how we intend to use this power of annihilation, it is generally presumed that if D-Day comes—whether through bungling or intent of either side—we would use all modern weapons to pulverize Russia—its airfields, its industries, its cities, everything. Our failure to define precisely just how we would use this capacity has tainted the strategy of Massive Retaliation with five major objections:

- ▶ 1. As Indo-China demonstrated, it is no deterrent to localized Communist military ventures. This is because a true threat only in relation to total war. In less serious circumstances, where lesser countermeasures are called for, Massive Retaliation is a bluff readily called to our embarrassment.
- ▶ 2. It engenders a climate of fear—fear of world destruction. Massive Retaliation invites massive, nuclear counter-retaliation. During the cold war the Soviets have profited immensely from this fear. They have turned the fear arising from our proclamations to their advantage in "peace offensives," keep countries of the West divided, weak and neutral, and uncommitted countries uncommitted.
- ▶ 3. In case World War III should come, Massive Retaliation implies that to win we would immediately undertake to smother everything in sight. To so invite Soviet counter-retaliation simply to threaten national suicide if World War III should happen. Still busy with the problems of reconstructing a small fraction of the world economy destroyed in World War II, we hesitate to contemplate reconstruction of the very large percentage which such a World War III would leave in ruins. As World War II demonstrated, to carry out a wanton massacre of largely guiltless peoples would solicit unite any survivors in firm opposition to us and drive them into the hands of their regime. The prospect also makes us morally uneasy. A war of attempts at mutual obliteration is as morally as well as practical nonsense. We can derive no satisfaction from a policy which is confined to wreaking vengeance for our deaths.
- ▶ 4. It is argued that Massive Retaliation is intended only as a deterrent to war. If war came, we would not, it is said, actually use our military power in this manner. "Like we never let the boys do it." But if we build our aircraft carriers, bombs, and train all our crews to fight a war of obliteration it may well be impossible, when D-Day comes, for us to fight any other kind of war.
- ▶ 5. Massive Retaliation minimizes the temporary advantage we hold by possession of a greater number of nuclear bombs. To conduct Massive Retaliation, relatively few, large bombs are required. The Soviets have a sufficiency of bombs and the U. S. and the Soviets will soon reach a stand-off in the matter of nuclear annihilation. The satisfactory strategy for us may be one which enables us to capitalize on our quantitative advantage. With Massive Retaliation, our excess can have little effect on the balance of power.

We also maintain today a conventional strategy dating from World War II. Pursuing this strategy has four major objections:

► 1. A conventional, or non-atomic, strategy hands the Soviets and their satellites a big military advantage. They are relatively stronger than we in conventional ground forces. Only our atomic superiority gives us preponderance of power today. If we gave up this advantage, the Soviets would be encouraged to experiment with military ventures. Their ground forces could quickly take Continental Europe and Asia. It is most uncertain that the Anglo-American industrial base could out-produce the entire Eurasian war economy sufficiently to mount a successful recapture of Europe and invasion of Russia. In the remote possibility that we could, it would be a victory so expensive that we would have lost what we were fighting for. World War I broke the power of France as a world leader and World War II almost broke the back of England. A non-atomic World War III might break the power of America.

► 2. Nuclear weapons are all that stand between us and the advance of massed Communist armies. To surrender their use almost guarantees our losing World War III, if not the cold war beforehand. Unless simultaneous and progressive reduction of other major weapons of war can be arranged under enforceable conditions, we can never agree to an international ban on nuclear weapons alone, even if the Soviets would alter their intransigence on inspection and enforcement. Without our agreement, no ban is possible on nuclear weapons alone. It is unnecessary, therefore, for us to plan to fight a non-atomic war. Proponents of conventional forces argue for the maintenance of World War II armaments "just in case" nuclear war should be outlawed. But how can it be outlawed without our agreement and why should we agree unless other major weapons are outlawed as well? The irrational attempt to justify conventional forces should not be allowed to confuse the issue and add unnecessarily to the defense budget.

► 3. A non-atomic strategy is immensely expensive to prepare for as well as execute. To attempt enforcement of the peace by balancing Communist non-atomic power with conventional force would require a stupendous defense effort for the Free World. This effort would have to be maintained for many decades—not just a few years as in World War II. The Communists direct more than twice the population controlled by the NATO and SEATO powers, and theirs can be regimented more readily for military and war-production purposes. Although they produce only 40 percent as much steel as America and free Europe, they can direct a higher percentage toward military production. To compete, we would have to have such a program of universal military service and give up so much consumer production that the necessary regimentation over the decades might back us into un-American extremes of statism.

► 4. In the cold war, pursuing a non-atomic strategy presents a baffling predicament. Either we lag behind Soviet military production and cannot stop Communist expansion by conventional means, or we organize our industry and manpower for war so that we lack sufficient resources to devote to the development of free centers of political, economic and social strength around the Soviet periphery. Instead we sink toward the Soviet level of regimentation. Heads, the Soviets win with their superior non-atomic military power; tails, the Free World loses freedom, whose preservation is the very object of our struggle.

In attempting to pursue World War II and nuclear strategies simultaneously, we have badly confused the tools for each type of war. We try to put conventional elements of military power in a nuclear strategy, and nuclear elements in a con-



SOVIET GROUND TROOPS

"They are relatively stronger . . . in conventional forces"

No Need to Bomb Cities to Win War

ventional strategy. They don't fit. The result is that we are not prepared today to fight either type of war satisfactorily.

This point is particularly obvious in our approach to the "mobilization base"—the peacetime structure from which production for war can be increased rapidly after D-Day. It is not yet fully recognized that whereas a mobilization base is the key element of national power in conventional strategy, it is completely unnecessary in nuclear strategy. This point is important enough to warrant elaboration.

In conventional World War II, the Germans made the great strategic error of assuming that initial power was the key to victory. They failed to recognize that the ability to create new military power was the decisive characteristic of warfare at that time and they failed to estimate properly the U. S. ability and will to mobilize. The Allies very logically attacked the Axis mobilization base; to bomb an opponent's factories to retard his rate of build-up was sound strategy in those times when ability to mobilize additional military power was the key to victory. Most of the Allied mobilization base remained safe and sound in North America. With this "arsenal of democracy," Allied mobilization was more than enough to offset initial German strength. Our war production was the decisive factor in the conflict. Little wonder, perhaps, that we treat the mobilization base concept so tenderly today.

But what folly to assume that because a mobilization base was of key importance in a conventional war, it necessarily will be of value in a modern, nuclear war. Because of the revolution in fire-power, the outcome of nuclear war will be decided in days or weeks and not in years, long before any mobilization base could produce power enough to affect the outcome.

In four years of World War II, the U. S. fired or dropped two million tons of high explosives. In modern parlance this is two megatons, only a fraction of the explosive force of a

single H-bomb set off early in 1954 in the Pacific. Making allowances for the fact that well distributed conventional bombs can do more actual damage than one equivalent centralized blast, still 100 assorted modern bombs on target will destroy about as much as did all U. S. high explosives in World War II. And a 137-wing Air Force can drop one hundred times 100 modern bombs in just a few days.

A few days of a nuclear World War III would see something like one hundred times the destruction of four years of World War II. The outcome would be decided in a few weeks at the most, and would depend on military forces and stockpiles in fighting position at the outset. Those built after D-Day from a broad mobilization base, however efficiently organized, and shipped across oceans would not be available until long after the issue had been decided.

Despite recent announcements calling for expansion of nuclear air power at the expense of the balanced forces, there are indications that the Administration plans modern strategy for a possible U. S.-Soviet conflict, while continuing conventional strategy for a possible U. S.-Chinese conflict. Indications of this sort are examples of improvised planning based on dubious assumptions. The assumption is made that we can successfully contain Chinese military ambitions without a phenomenal expansion of conventional surface forces. It overlooks the fact that we do not have the preponderance of conventional power in relation to China; that we could not conscript enough Americans to achieve such a preponderance. It further overlooks the prospect that China may some day possess nuclear weapons itself. There is no basis for the premise that Anglo-American and Soviet monopolies on nuclear power will last. With nuclear weapons China, Argentina, Japan, or Yugoslavia could radically change the world balance of power. Planning which ignores such possibilities is hindsight today.

Third: A NEW APPROACH

III. Nuclear Punishment

FACED WITH THE FACTS OF NUCLEAR LIFE, and committed to not one but two inadequate policies, we ask whether there is another course of action which would lead to truer security. There is, of course, no strategy which will provide absolute security. The question is whether acceptable security can be achieved at tolerable cost. Setting this as our objective, we can answer this question affirmatively if we act as follows:

A. Drop conventional World War II strategy.

B. Dispose of massive retaliation and substitute a policy of NUCLEAR PUNISHMENT.

C. Specify a series of Nuclear Punishments to be inflicted on any nation committing aggression against the U. S. or one of its allies, the punishment to fit the crime as follows:

- ▶ 1. Punish an aggressor who attacks with conventional surface forces by destroying, with tactical nuclear weapons, his units in the battle zone and immediate rear areas.
- ▶ 2. Punish aggression which is supported with conventionally armed aircraft by hot pursuit in the air and nuclear attack on air bases of the aggressor.
- ▶ 3. Punish nuclear aggression by using our nuclear plenty to destroy instantly and utterly the nuclear stockpiles and the entire delivery capability of the aggressor.
- ▶ 4. Withhold nuclear attacks on aggressor cities unless the aggressor first attacks cities of the U. S. or its allies with weapons of mass effect.

Recent delivery of atomic cannon, rockets and missiles to modern Army forces now in the field enable immediate use

of tactical nuclear weapons to neutralize conventional ground and air forces with economically feasible military power of our own.

The ability to destroy nuclear military forces exists in the counter-force capability of the Strategic Air Command, the Tactical Air Commands, and the offensive Carrier Task Forces.

The capacity to wipe out cities in retaliation against nuclear attack on our cities exists in the counter-economy capability of the Strategic Air Command.

With the exception of weaknesses in our intelligence, a policy of Nuclear Punishment can be carried out today. It is fully consistent with historically accepted principles of justice. It substitutes punishment to fit the aggressive crime for our present reliance on threats of ultimate punishment to meet all situations.

The intent to retaliate directly against conventional forces of satellite or Chinese Communist nations is asserted, in case they grab for more territories of the free world. The intent to strike massively and instantly against Soviet nuclear forces in case of Soviet military aggression is made the cornerstone of our defense policy. The ultimate punishment, annihilation of Soviet cities, is reserved in case the Soviets commit the ultimate crime by first attacking our cities with weapons of mass effect.

IV. Stopping Local Aggression

IN WORLD WAR I, defense of a line was elaborate and costly but assault was much more so. In World War II, armor and close air support gave the advantage to the offense. Now the pendulum has swung back drastically. The revolutionar

increase in fire power which nuclear weapons place in the hands of defending troops provide the defense with near absolute superiority at relatively low cost. With tactical nuclear forces, the defense can render a battlefield virtually impenetrable. The new Army, employing highly mobile cellular units, can readily stop any remnants that get through.

It is now feasible to draw a line between Communist and free Asia, for example, and hold this line against massed surface forces. We can stop surface aggression by decimating attacking units with existing nuclear bombs, cannons and rockets. To avoid unwarranted suffering by the people of the aggressor nation and to punish only forces of the regime, the attack can be limited, insofar as possible depending on topography, to an area within about 100 miles of the aggressor's border. Aggressor units moving through this communications zone to the front can be destroyed by nuclear weapons faster than they can be brought up from the interior.

Presumably the battle front would first extend over territory of the friendly ally. To avoid punishing our ally rather than the aggressor, we would endeavor first to destroy the aggressor's reinforcements and logistics in the communications zone, cut off aggressor units in allied territory, and thus force their surrender. We could refrain from nuclear operations on friendly territory unless our ally considered them militarily necessary. If the aggressor should support ground aggression with conventional air forces, we would punish with nuclear devastation his air forces and bases involved, whether in the communications zone or behind.

Penetration behind the communications zone to attack the aggressor's interior is unnecessary, as neutralization can take place when military forces of the aggressor enter communications and battle zones. Agriculture, cities and industrial complexes behind the 100 mile communications zone in aggressor territory need not be attacked.

We would endeavor to prevent air attack on our ally's interior by announcing our intention not to retaliate against the enemy interior, unless he first attacks our ally's.

Our reaction to each of these forms of aggression would be made quite clear beforehand. The aggressor would know full well not only the consequences of his initial aggression, but also the multiplied retaliation which would befall him if he were to resort to more flagrant methods of aggression. Sure knowledge of multiplied punishment can prevent brush wars from spreading to major conflagrations.

Suppose the aggressor attacked with nuclear weapons? Our present superiority in these devices makes it extremely doubtful that the Soviets would support local Communist aggression with weapons from their own nuclear stockpile. They are obliged to reserve their nuclear striking power, inferior to ours in quantity, for attack on our air bases in the event of World War III. An exchange of nuclear blows along a battlefield would render it completely static, so that Soviet commitment of nuclear weapons would not enable their surface forces to advance.

But if the Soviets, or any nuclear-equipped aggressor, employ nuclear weapons, "hot pursuit" would be our announced reaction. In this event, we would attack instantly and massively all the nuclear stocks, forces, and bases of the aggressor nation. In destroying its nuclear capabilities, we would make clear that no cities would be attacked unless those of our ally were first attacked. Our unquestioned ability to commit overwhelming nuclear plenty immediately from remote bases could be used to stop and prevent the spread of any type of local military aggression, conventional or nuclear.

Nuclear strategy is now construed as applicable only in all-out global war. But, in Asia, Mao Tse-tung's generals are second only to the Soviets in power to fight conventional

war. Thus Mao, whom the defeat of Nationalist forces against 3-to-1 odds has revealed to be a strategist as brilliant as the world knows today, has enormous room to maneuver. He can threaten, bluster, wheedle and attack. He can commit forces anywhere along his periphery to satisfy Chinese imperialist ambitions with virtual impunity; the manpower cost is irrelevant to China. By threatening war to obtain counter-threats from the U.S., he drives a wedge between us and our allies, and secures bargaining points for furthering Chinese political ambitions in the U.N. and elsewhere. His military capacity also constitutes a good bargaining point with Moscow in his efforts to extract more economic and military aid. His blustering sets up the external scape-goats to excuse his internal program of "everything for the armed forces" and vast industrialization at the same time.

We cannot hold local Communist land forces at bay in adventures of the Korean type by relying on conventional forces for situations in which the aggressors are willing to commit superior numbers of troops. To stop Mao and save Asia, or any region where any aggressor may start local wars, we must deny them their conventional superiority and throttle their freedom to maneuver diplomatically with threats. We can do this only with the ability and will to commit tactical nuclear weapons.

In the stalemate thus achieved, the Communists would have only two choices: to halt aggression, or engage in total war. The latter imposes on them the gravest risks of ever more murderous punishment.

Suppose the Soviets counter our announcement of Punishment policy with the threat to A-bomb New York the instant we explode one nuclear weapon in an effort to stop local aggression. Would we risk starting a major conflagration by using nuclear weapons to put out a small fire?

As long as we possess nuclear superiority, it is illogical for the Soviet to carry out such a threat. The Kremlin is well aware that an attack on New York would bring immediate disarmament of all its nuclear forces and perhaps untold destruction to Soviet cities. With our nuclear plenty the Soviets would be powerless to prevent it. The Kremlin would be no more.

In short, such a Soviet threat would be pure bluff. We would require, however, the judgment to recognize it as such and the fortitude to call it. Our failure to do so would be disastrous. The alternative would be to resign ourselves to Communist domination with conventional forces in the nuclear age.

V. Winning a War With the Soviets

GENERAL TWining, CHIEF OF STAFF of the U.S. Air Force, has remarked, "The best way to prevent war with Russia is to be able to win." When we concentrate on planning to win, we must not lose sight of the fact that our real objective is to prevent. But how to win needs first to be considered. What is the best way?

We must have nuclear weapons systems ready before D-Day which are superior in number and quality to engage Soviet nuclear forces. These weapons, which must be hidden from attack and cocked and aimed at Soviet nuclear forces, constitute the core of our military might. We must launch our strategic counter-attack instantly and massively against Soviet nuclear weapons systems at H-Hour, without dissipating their use on other, indecisive targets. This course of action must be the crux of our major strategy. The emphasis must be on counter-force strategy, not counter-city strategy.

United States and Soviet equality in a war of annihilation is fast upon us. Next year, if we both choose to use our nuclear power against cities, we could destroy perhaps 75 per cent of major Soviet cities; they could destroy perhaps half of ours.

No Need to Bomb Cities to Win War

particularly as we assume they will have an aggressor's major advantage of surprise. The correct figures do not matter—each antagonist would be dead as a nation. You can't kill a man deadier than dead. We can no longer extract a balance of power advantage in a war of counter-city blows.

Therefore, our military advantage—if we are to have one—must be sought from superior ability to destroy Soviet nuclear military forces. In the brief interval between the first Soviet nuclear explosion of 1949 and their acquisition of nuclear sufficiency, the military strategy game that we thought we could play successfully with the Soviet has changed completely. Before 1949 our ability to annihilate was unchallengeable; the Soviets had no way of countering it and the balance of power ran strongly in our favor. It was sound planning to base our military posture on massive blows aimed at the heart of Russia.

After 1955 the Soviets will have sufficient ability to annihilate. But because we have many more bombs than the Soviets, we can plan to use this advantage for the destruction of Soviet nuclear military forces. Poised in a counter-force posture, our superiority in nuclear numbers can give us an overwhelming military advantage. The balance of power can once again be swung markedly in our favor if we skillfully prepare to dodge, seek and kill Soviet nuclear air forces.

Nothing else really matters. The only military job we need to concentrate on at H-Hour is destroying Soviet nuclear forces. This battle will be the decisive phase of the war. If this is won, everything else is possible. If it is lost, everything will be lost.

History is strewn with failures to recognize early enough the decisive nature of new weapons. The British used the first tanks in 1915. But they failed to realize that tanks would be decisive only in a war of movement. Instead, they committed them unsuccessfully against a static front. The Germans were first to use strategic air power in a major war, against Warsaw. Early in World War II, they committed it indecisively against morale targets like Coventry and London, hoping to destroy the illusive "will to resist" and force the British to sue for peace. But as Chester Wilmot pointed out in "Struggle for Europe," had the Germans committed air power solely to attack on British air and naval defense units—had they used counter-force strategy—they would have won the Battle of Britain.

Unless we wish historians to list us with the others, we must reshape our military establishment to reflect the overriding military need of our times: a capacity for successfully exchanging instant nuclear blows with Soviet nuclear forces.

Our military recognized this publicly as long ago as 1951. In August of that year the late General Vandenberg said this at a Los Angeles press conference:

Our own development of the atomic bomb, the fact that Russia has exploded such a bomb . . . and our own atomic bomb tests have changed the order of things. In the event of war, the emphasis, in point of time, must go first to destroy the enemy's ability to smash us and then wreck his warring potential.

The Government thus announced what must be done first, but adherence to the outmoded second step has so confused the issue that we have not today the best force composition to dodge, seek and kill Soviet nuclear forces.

The point has been made that industrial dispersion is of little or no value in nuclear war because the decisive phase will be too short for industrial production after D-Day to have any military usefulness. But quite the contrary is the case for force dispersion. In counter-force war the ability to dodge enemy attack is as critical as capacity in being to destroy enemy offensive capability.

The key technical problem is no longer one of range extension. This has essentially been solved and planning should recognize that neither antagonist is range limited. The problem has become how to achieve range capability without having bases which are vulnerable.

As long as we needed range and had only the technology to achieve it with bases that are vulnerable, and as long as the Soviets had but small numbers of nuclear bombs, our enthusiasm for big bombers and supercarriers was justified. But now our nuclear striking power is largely tied up in relatively small numbers of vulnerable sea and land bases. Today our long range air power operates mostly from large carrier and bomber bases, and both are highly vulnerable to bomb and missile attack.

Unless the naval program is revised to provide means of operating planes from the sea that are less vulnerable, the carriers, and unless the big-bomber program is also recast to provide less vulnerable bases, both forms of striking power will be unprofitable in the long term. Huge bombers have double as transports in flying endless hours across unfenced water or Arctic waste; it is like building a naval tank and destroyer as one unit. Vulnerable before it is airborne, vulnerable in the air, expensive to build and operate, and inflexible in its uses, the big bomber becomes obsolescent as the Soviets gain in offensive nuclear power. Although B-52 and supercarriers are at present useful in our operational forces, they are too expensive in relation to their military return. Also it is unfortunate to expend money on elaborate defenses to protect them, thus committing so much of our military strength to an unnecessary defensive posture.

To minimize the vulnerability of our attack forces to Soviet surprise assault, they must be essentially baseless and operate instead from a large number of small, dispersed, mobile or sub-surface sites close to the Soviet periphery. The techniques for doing this are all at hand, and we can now begin to build baseless, nuclear air striking power to replace existing equipment operating from vulnerable bases.

Already available are flying tankers to act as airborne refueling stations. From these airborne sites and from refueling strips with underground facilities, fighter-weight aircraft carrying nuclear bombs, such as the F-84F Thunderstreak, can now penetrate Soviet defenses and reach most targets with air refuelings. Medium bombers like the B-47, and later the newly announced supersonic B-58, can make the deep penetrations. Missiles can be fired from the air and sea, from mobile ground positions, and from underground sites. The advent of Lockheed and Convair vertical-take-off aircraft heralds the day when aircraft can be refueled and rearmed directly from trucks on highways.

The Navy can soon play a major new role in making dispersed refueling and repair sites feasible in the open sea. Revolutionary advances have resulted in Convair's hydrofoil jet, the Sea Dart, and its new turbo-prop flying boat. When fully developed, Martin's experimental 600 mph P6M Seamaster, the world's first multijet seaplane, can operate with complete flexibility in or near enemy waters. Refueling and rearming at sea from submarines, small craft and flying boats will solve logistics vulnerability problems. The day is nearing when obsolescent carrier task forces can be superseded by seaplanes, comparatively low cost weapons with far better chance of survival in nuclear war.

With further development of techniques of this kind, we can reshape our nuclear air power so we need no longer fear that our counter-attack strength will be gutted in one swift, Soviet surprise attack.

To overcome base vulnerability is the critical military reason we need allies. Baseless range extension is far easier with highly mobile stocks, refueling stations and other portable logistic facilities, staged and maneuverable close around the

Soviet periphery. This compelling need can be met only with full cooperation from like-minded allies. Such collaboration is politically feasible only if we offer them full military partnership in our efforts to stop Communist aggression.

The Iron Curtain has made our intelligence problem extremely difficult. Confusion about strategy has compounded the problem. Because of our fascination with mass bombing, insufficient attention has further hindered progress in intelligence and reconnaissance on Soviet military forces.

Taking the emphasis off economic targets and concentrating on nuclear-force targets will improve the usefulness of conventional intelligence and reconnaissance techniques. Airborne methods offer attractive possibilities if we discontinue the use of obsolete B-29 photo reconnaissance aircraft near Soviet borders. The post-war revolution in military technology can provide better techniques than this.

Looking to the future, journals have been full of reports of the possibilities of an earth-encircling space platform a few hundred miles up that could be used for observation purposes. The *New York Times* reported on December 22, 1954 that the combined efforts of the military services were being devoted to studies of "earth satellites." The present state of the aeronautical art makes the satellites feasible in the not-too-distant future. A few simple calculations, assuming lenses no larger than those now used in aerial photography, show that these might see, and perhaps return to earth by electronic means, gross details of larger military installations.

Counter-force strategy requires accurate bombing. But it is difficult for air crews to maintain high interest in pinpoint accuracy as long as our Air Force is preoccupied with the use of area weapons. When you plan to use a weapon whose radius of destruction is measured in miles, you don't worry about a few hundred yards, more or less, in circular error. As soon as the nation rids itself of a mobilization base mentality and corollary thinking in terms of blows against large city areas, it will then be easier to pursue again pinpoint precision in bombing.

But there is an even more important reason for pinpoint atomic bombing instead of hydrogen area bombing. This is because of fall-out. Fall-out is what killed fisherman Aikichi Kobayama, the world's first victim of a hydrogen bomb. When radio-active particles drop from the drifting clouds of a nuclear explosion, vast areas are contaminated. Scientists have estimated that both the United States and Russia have stockpiles which, if exploded in total war, would alter the basic conditions of life on this planet. By aiming large nuclear blows at the Soviet economy, the United States would in effect be committing genocide—and for no justifiable military reason.

We should instead use small atomic weapons, selected only to destroy or deny access to military targets. Penetration bursts rather than air bursts can in some cases localize the effects of fall-out and deny normal access to the area for long periods.

The lack of a clear course of action sufficient to the times has resulted in our building air power that is not very efficient for modern war. But once our military purpose is clear, we can very readily select the most suitable means.

As for the Russians, they should not change their course of action after we fully embrace a counter-force strategy. Logically they are already compelled to pursue one. They should attack our airfields first—they cannot afford to waste a bomb on our cities until our nuclear air force is substantially destroyed. They undoubtedly realize that a few weeks' production from our cities is inconsequential compared with their decisive task of first knocking out our air forces. They have been reported to be dispersing their own air forces as much as possible and to have rocket sites of relative invulnerability. They solve much of their intelligence problem by reading U.S. newspapers. Their present strategy should already

be to hide from, seek and kill our nuclear air forces. The only impact of our change may be to accelerate their efforts along the same course of action.

The ability is in our own hands to return the destruction of warfare to the battlefield—the new battlefield of air power installations. The civilian realms of both antagonists can, if we so choose, be removed from the conflict.

VI. Withholding Attacks on Cities

THE MILITARY CONSEQUENCES of restraining counter-city blows after D-Day must be examined.

Military planners speak of war as having three principal phases—the build-up, the decisive, and the exploitation. It has already been made clear that for a nuclear World War III, the build-up takes place before the first shot is fired and the decisive phase will be over in a few weeks of nuclear blows after D-Day. During exploitation, the victor of the decisive phase normally uses political and diplomatic instruments, as well as his hard-won military dominance, to impose his will and terminate the war. The peace is partly negotiated, partly persuaded and partly forced.

In the decisive phase, just as fast as possible after H-Hour we must attack all Soviet aircraft, missiles, missile launching submarines, bases, stores of fuel and nuclear explosives, and the directly supporting military supply system. When these targets are located in or near cities, allowance will have to be made for bombing error. But if we make precision attacks on nuclear targets in cities, with explosives just sufficient for each target, our bombing accuracy can limit major destruction to about one-half mile of the target circumference. The pinpoint precision of our most experienced and best-trained crews in the last war is an indication of what can be done. The operations of the renowned British "dam-buster" squadron demonstrate that almost any degree of precision can be achieved for special targets—even to laying penetration bombs in the middle of something as narrow as a dam.

For purposes of the proposed policy, we should define a city as any population concentration not within the destruction radius of the size weapon required to destroy a military nuclear installation. There are no other military targets in cities which we need to bomb. Soviet production during the few weeks of the decisive period cannot affect the issue—any more than ours can. Nor can Soviet ground troops within cities affect the decision, even if they should be moved to the front during these few weeks. If we win the nuclear air battle, we can subsequently destroy those troops at will. Thus, there is no reason to bomb cities to get either ground forces or production facilities.

A false argument favoring D-Day attack on Soviet cities supposes that in the decisive phase, neither side will achieve nuclear air dominance because each side will knock out the nuclear military power of the other; there would then be a race to build conventional and nuclear weapons systems again. If we had in the meantime destroyed his industrial base, we would win this second build-up race. The fallacy in the argument is this: if we do not bomb Soviet cities we would have nuclear air power left over from the decisive phase to later bomb his production facilities if that should prove necessary.

By leaving Soviet cities alone during the decisive period of the war, we increase rather than decrease our military efficiency. As military strategists from the beginning of time have pointed out, to dissipate effort on non-decisive targets during the decisive phase is a cardinal sin in war.

If we win the decisive phase of World War III, Soviet bases and nuclear weapons systems will be destroyed, but vast land armies may remain. If our peace terms have been clearly and publicly defined beforehand, there is a strong

No Need to Bomb Cities to Win War

possibility that we could quickly terminate the war. We would use a combination of:

1. nuclear bombing of land armies and threats to do so;
2. a threat to pulverize production and cultural centers, after appropriate warnings to the populations to evacuate in keeping with our promise not to bomb population centers unless ours were first attacked;
3. diplomatic negotiation if the Kremlin proves tractable;
4. in case it does not, a strong propaganda drive to encourage dissident elements to rebellion; and
5. airborne military seizure of a few key administrative centers such as Moscow.

The high human and material costs of a lengthy exploitation phase can be saved if we have a carrot available to go with the stick—the promise of saving production and cultural centers from obliteration if the enemy will accept our peace terms.

In World War II, our policy of unconditional surrender, to teach the Germans a lesson they would remember, plus the lack of clearly defined peace terms or post-war political objectives, meant that, after the decisive phase ended with the Normandy invasion, we waged the exploitation phase using military power as the sole instrument of our national will. We did not offer any encouragement to, or try to negotiate with the dissident elements in Germany who recognized the decisive phase was lost, and some of whom even tried to assassinate Hitler a few weeks after the invasion. We did not try to isolate the people from the regime. Instead we and our allies were trying to destroy the illusive "will to resist."

Doctrinaire Douhet-ites of the airpower school have long advocated that the will to resist is a principal target in war, despite Coventry, Berlin, and much other experience invalidating the theory for general use. With our allies we used our dominating military power toward the end of World War II to bludgeon Germany and drive the people further into the arms of the existing regime as their only hope of succor, particularly after von Rundstedt's failure in the Ardennes. This policy made necessary the costly march of Allied and Russian armies across Europe to Berlin, plus extra months of bombing an already defeated Germany. Finally, it installed the Russians in the unnecessary power vacuum we created.

There is another sound reason for withholding city attacks on the USSR. Ancient Chinese strategists called it the "silver bridge" of an acceptable alternative. Restrained, counter-city blows allow us to present a silver bridge to the Soviets, in the form of an acceptable alternative to destruction. If the Soviets do not wish to face annihilation, they can withhold attacks on our cities. Our own restraint would shield cities of the Free World against attack by weapons of mass effect—a shield which we discard if we plan to attack Soviet cities on D-Day. This shield can be tempered to great hardness by determined diplomacy making clear to the Soviets the substance behind our retaliatory threat and the attractiveness for them in restraining their city attacks.

A question which the reader may well advance at this point in the discussion concerns irrational Soviet behavior. Suppose, he may ask, in spite of our threat of retaliation and in spite of obvious military reasons impelling them to knock out our air bases first, the Soviets do strike at our cities with weapons of mass effect. If they should behave in such an irrational and un-Soviet manner, it is still best for us to concentrate on their nuclear air forces. Only when these are annihilated will our cities be free from attack. We can later threaten Soviet cities, after warning to populations, should that become necessary to terminate the war.

But the reader may press the question. If the leaders of

the Kremlin are cornered in a war they are obviously going to lose, might they not behave fanatically, as an atomically armed Hitler certainly would have, and choose to destroy the world rather than lose to an opponent? We might deal with this prospect by again availing ourselves of a carrot-and-stick approach. In the course of announcing that we are restraining our counter-city blows unless United States or Allied cities are first attacked, we could aim a message specifically at Soviet air crews and Red military leaders.

In messages to aircrews we could hold out the carrot of sanctuary if, instead of carrying out assigned missions to bomb our cities, they fly over certain corridors to designate air bases. The stick is, of course, the threat to annihilate the families and cultural and economic roots in Soviet cities they carry out their mission and bomb our cities.

Red military leaders would also be important targets. Political leaders of a nation facing defeat are often fanatics. However, military leaders are usually realists—the first to recognize when the game is up and plan accordingly. They are the professionals, in defeat and victory. In defeat, the position in the country can depend on their ability to save their people from useless death and suffering.

A carrot-and-stick approach to Red military leaders could be very effective in causing dissension between the armed forces and the Kremlin. The clash between Hitler and the German General Staff in the closing months of World War II in Europe is a recent example. A carrot-and-stick approach could facilitate ending a major conflict without having resort to nuclear genocide.

A psychological-warfare campaign begun now can drive a powerful wedge between the Kremlin, Soviet military leaders and airmen should the Kremlin ever fanatically order attacks on our cities. Prospects for large-scale subversion of Soviet air crews and military commanders by this approach are favorable. Subversion of one pilot and termination of one nuclear mission thereby would more than justify the propaganda effort involved.

In broader aspects, the significant point of restrained counter-city blows is the fact that we renounce total war as a defense policy. If it were ever a useful concept—and this is doubtful—"total war" is 100 per cent foolish and useless to anybody in the nuclear age. A war of counter-city blows must be avoided at all costs—it is tantamount to mutual suicide. It will be a great day for America when we renounce nuclear bombing of population centers and abandon our 12-year adherence to the uncivilized policy of total war until unconditional surrender. It will be a greater day for the world when we can with assurance disarm.

VII. Coups d'Etat and Subversion

WE CAN USE Nuclear Punishment to prevent military aggression from without but how do we prevent aggression by violent seizure of power from within, by political infiltration, and by moral and psychological subversion?

The threat of Nuclear Punishment can be helpful in deterring internal seizure of power. Suppose the 1948 Communist coup in Czechoslovakia were to occur today. Suppose there were a U.S.-Czech Mutual Security pact which provided that, in the event of violent seizure of power in Czechoslovakia, the U.S. would be obliged to occupy and police the country temporarily pending prompt U.N.-supervised elections.

Under these circumstances, when Premier Masaryk and other government officials were seized and held incommunicado, U.S. paratroopers could have occupied the Czech capital from bases in Western Europe within a few hours. U.S. and Allied nuclear forces could have been standing by to seal off Czech borders in the event Soviet troops attempted

intercede. Czechoslovakia could have been defended until people had an opportunity to express themselves politically.

These opportunities could be made available not only through mutual security pacts with countries interested in bilateral agreements of this kind but also through arrangements between the U.N. and member countries. Elite troops for temporary occupation and military government could be made available on call to the U.N. by the U.S. and other like-minded nations. Eventually, U.N. Charter revision may be able to provide for such guarantees of political expression for all peoples.

Military action would be of no direct value in situations involving more subtle infiltration and true subversion. But strong military protection, furnished by a nuclear ally empowered by international authority to police a nation pending prompt U.N.-supervised elections, can do much to prevent the feeling of hopelessness which gradually undermines a

country in the advance stages of political demoralization. In addition, the economic, technical, and informational resources of free nations can be brought to bear to compete with the forces of subversion at work in the country. With effective military power organized to frustrate violent aggression the Free World should succeed in non-violent competition to keep peripheral areas of the world from falling under Communist domination. If the Free World fails in this context, it surely deserves to lose.

The fact remains that the Communists have never been able to seize power outside areas occupied by their troops when they did not have two weapons: a militant Communist minority to seize power by violent means from within and massed Communist troops on the border to move in if internal efforts failed. This kind of a Communist operation can be stopped in its tracks by special mission forces and the threat of Nuclear Punishment to seal the borders.

Fourth: THE MILITARY PROGRAM

VIII. A New Power Base

UNDER A POLICY OF NUCLEAR PUNISHMENT the military power of our nation should consist of military forces being erected from and resting on a modernized structure of national support. Active military forces, trained and equipped for immediate combat, are of overriding importance; forces potentially mobilizable from reserves of manpower and expandable production facilities are of no value in deciding the outcome of World War III, and of little value in preventing incidents around the Communist periphery from flaring into brush-fire wars. As emphasized earlier, a broad mobilization base is a useless foundation upon which to base our active military forces. Instead, we need a tripartite base of intelligence, research and development, and efficient production.

Intelligence specialists talk of two major determinations, intentions and capabilities. The only important aspect of the "intentions" problem is to obtain accurate and timely warning of aggressive attack.

The warning problem should be analyzed on a time basis; warning of the year of maximum danger; warning several weeks before an attack; warning several days before an attack; and warning several hours before Soviet aircraft pass our radar screen. The warning problem has several aspects. What kind of warning intelligence can we obtain and what is useful? How will we react to what degree of warning? The fallacy in counting on identity of any year of maximum danger has been broadly recognized. It is virtually impossible to get experts to agree on the most dangerous period, and those responsible for decisions have great difficulty taking effective action on the basis of such estimates because they know that shorter interval developments have great bearing on the exigencies of a D-Day situation. President Eisenhower has announced that his Administration believes in military forces constantly ready to meet the danger of Soviet aggression each and every year.

The fallacy in counting on several weeks' warning is that the Soviets, in the process of military training and maneuvers, can simulate preparations for real war so effectively that at very little cost they might force us into expensive reactions and keep our national nerves on edge. It is still useful to follow the movements of Soviet military forces and to try to infiltrate high military and government levels to obtain several weeks' indication of an attack. But we can hardly react to such indications except to put our intelligence services on 24 hour alert to watch for further developments.

A few days' warning is a different matter. Although the

Soviets without great cost could perhaps simulate an attack to be launched in a few days, and although we cannot rely 100 per cent on such indications, the fact remains that with a few days' warning all our military forces can be made much more combat-ready. In effect, with a few days' warning we might multiply our fighting strength considerably. Such is the importance of a few days' warning to alert our military and for civilian defense that we can afford to pay handsomely for it.

The arguments on the importance of a few hours' warning are identical but more critical. The cost to the Soviets of spoofing is probably greater and much improvement in our fighting effectiveness will result from just a few hours' warning in advance of positive confirmation from our radar screens. We would probably send our bombers on their way but would we let them drop bombs? Should we tell bombardiers to do so when the Soviets pass our radar nets in large numbers?

We must first define the act of nuclear war and then announce that commission of the act by a possessor of nuclear weapons would trigger instant destruction of his nuclear capability. In the present period of U.S. nuclear plenty and Soviet sufficiency we can consider such an act the explosion of a nuclear weapon in an attack on the U.S. or one of its allies. Presumably, this is our present plan. Thus warning intelligence is vital to cock our military power but not trigger it. Rejection of the preventive war thesis means that warning intelligence and even radar early warning will not trigger our "bombs away."

Along with critically important warning intelligence, priority is shared by the need for full knowledge of Soviet nuclear air capabilities. For reasons already established, our nuclear air capabilities must continue overwhelmingly superior in quantity and quality, and counter-force strategy will require timely and accurate intelligence on Soviet nuclear forces to be effective.

As for other Soviet military capabilities, they are of secondary or negligible importance. Specific factory production data for target purposes is not significant when Soviet cities, if ever attacked, will be attacked with large area weapons. It is somewhat important to know something about conventional Communist military forces before the start of any local or total war, but such information is of secondary importance. If our aerial reconnaissance and combat intelligence units are reasonably competent in obtaining battle and communication-zone information immediately upon the outbreak of any war, it is of less importance to gather this information before war's outbreak.

One thing a proper intelligence base can do is help insure

No Need to Bomb Cities to Win War

that we are not preparing to overcome imaginary Soviet strength. Weak intelligence inevitably leads to estimates on the "safe" side. This can be a very expensive proposition.

The critical problems of military intelligence for a policy of Nuclear Punishment can be solved by three means:

- ▶ 1. New technology must be exploited to obtain warning and information on Soviet nuclear air capabilities. In my opinion, research on the problem of pre-war intelligence is the area where the taxpayer will get the maximum return for his defense dollar.
- ▶ 2. The second element in the first-line intelligence team will be rejuvenated methods of combat intelligence, particularly aerial reconnaissance able to operate around the clock, in all weather conditions. Today combat intelligence systems are bogged down in detail—detail of the location and manning of specific units, detail of the personalities of military leaders, detail of the order of battle, detail on the minute characteristics of targets. This detail is of secondary importance when we are planning to use nuclear weapons. It clogs communication channels. The vital messages which give us the aiming points at which nuclear weapons must strike cannot get through to our bombardiers and artillerymen in time for them to destroy enemy concentrations which are certain to move rapidly. Modern techniques of combat reconnaissance, when put on an area basis consistent with nuclear weapons, can provide timely information on conventional communist forces after D-Day sufficient for nuclear targeting purposes.
- ▶ 3. Conventional intelligence techniques should also concentrate on providing warning of imminent aggression, and information on Soviet nuclear air capabilities. These two problems are so overriding and the difficulties of operating in a tight police state are so extreme that conventional efforts should not be directed toward any other military intelligence purposes.

The second part of our support base is research and development to create new means for maintaining our qualitative military superiority. Since 1940, the technological revolution of our times has had a continuous and dynamic impact on our military structure, and this must be continued.

First, it is imperative that basic scientific research in the U. S. secure more support. Through pure research, which often appears aimless to the practical man of action, we create new scientific knowledge for subsequent exploitation by military scientists. Such activity, expanded through the National Science Foundation and normal university channels, will provide workshops for scientists who now complain so justifiably of the restrictions imposed on their creative abilities by military securities.

The problems of making the benefits of pure research quickly available to active military forces, has resulted in formation of an applied technology team of military officers and scientists. While improved teamwork and methods can probably increase their output slightly, a sizable increase can only come from more military research and development. It has been stated that about half our national research and development efforts go into military technology, leaving half for basic research and for bettering the material welfare of the American people. While it is perhaps not desirable to increase the military share of the research effort, nonetheless a much greater quantity is unquestionably necessary to succeed in the many programs now on the military agenda: piercing the sonic barrier with production aircraft, beating the Soviets to the IBM and earth satellite, trying to find a defense against rockets, vertical-take-off and hydrofoil aircraft for dispersed operations, night and bad weather reconnaissance eyes, sophisticated fuels and a thousand others.

A continually increasing military research budget is necessary to create the demand for more national research capacity. The demand thus created, particularly if supplemented by similar pressures from industry, will eventually be satisfied by the training of more scientists and engineers.

The third part of the support base is efficient production. This base must be constructed not with a view to expanding production after D-Day, but for the purpose of quickly placing the benefits of technological improvements in the hands of combat-ready forces, at lowest cost. It cannot be said too often that production after D-Day can have no appreciable effect on the outcome of modern war and that a mobilization base is of no value.

For civilian defense we can shut down our cities on D-Day for the few weeks of the decisive phase. We can leave a small maintenance force easily sheltered, and evacuate population to the country. Not only would this measure be more satisfactory than evacuation before each raid and cheaper than huge underground shelters, but absence of populations and production activity might remove an incentive for a Soviet attack.

The entire concept of our military production base must be modified if we are ever to enjoy acceptable security at tolerable cost in the nuclear age.

IX. New Military Organization

THERE ARE TWO REASONS why we do not have the best military establishment our money can buy: strategy and structure.

Strategy has already been discussed. As long as we are confused by two inadequate strategies, there is room for disagreement between Army, Navy and Air Force leaders about which units should receive priority in the military line-up. A single clear strategy will provide a rational basis for cutting out the many unnecessary military forces that are now maintained but which constitute neither an effective deterrent to war nor an effective means of deciding one in our favor. When our national purpose is clear, and when we have a counter-force strategy consistent with it, our military means can be shaped to serve them. There will be sound criteria for evaluating the relative effectiveness of this or that military proposal, and budgets for useless units cannot long continue hidden in the confusion over strategy.

The second reason why we do not have the best possible defense is the structure of our military establishment. It has been soundly criticized by former Air Secretary Finletter because its present organization can never produce the right types of forces to provide adequate security at reasonable cost. To overcome deeply vested military interests of the Army, Navy and Air Force, the operating commands must be regrouped and the Department of Defense reorganized both by appropriate legislation and executive order.

Our military commands must reflect military mission and not existing means. The commands, managed directly by the Secretary of Defense through an operations office constituted of the reorganized Joint Chiefs of Staff, should be set up according to primary missions regardless whether the unit in each command are trained and equipped by the Air Force, the Navy or the Army. The three services should serve to build military power from the nation's support base but, once combat-ready, their units should be placed under operational control of a commander owing loyalty only to the Secretary of Defense and assigned a mission which is specific part of our strategy. To bring this change about, an executive regrouping into five types of military command is necessary.

First, there should be a Nuclear Air Command, composed of superior nuclear offensive aircraft. This command should

be relatively invulnerable to surprise attack and used to destroy Soviet nuclear air power at the fastest possible rate after H-Hour of a U.S.-Soviet War. Although its nucleus at first would be the present Strategic Air Command, it would also include many elements from present Tactical Air, Naval Air, and Submarine Forces.

Next there would be Combat Commands—NATO, whose command structure is now properly organized, and another command whose units are suitably deployed for flexible use around the Communist Asian periphery. In accordance with provisions in mutual security agreements, these nuclear-equipped Commands would have the mission of destroying aggressor surface forces in the communications and battle zones, and aggressor air forces, if necessary. Besides modern Army surface units, nuclear rockets, and close-support bombing aircraft from present Tactical Air Commands, these two new Commands would have air reconnaissance forces able to overfly the battle zone and rear areas to watch air fields and approach of Communist ground forces in the daytime, at night, and in bad weather. These mobile units of surface and air power would be air supplied and able to operate in dispersed, cellular fashion to be relatively independent of the conventional, "chain of supply," surface logistics system.

To make Soviet air attack against the continental U.S. as costly and difficult as practicable requires Continental Defense Commands. The recently organized Continental Air Defense Command of Air Force, Army, and Navy units is a start toward overhaul of command structure required throughout the military establishment. Pacific and Atlantic Naval Commands are needed to protect the U.S. against naval and undersea attack, particularly with missiles launched from submarines.

A Special Mission Command of elite, conventional units is also needed. A logical nucleus should be our present Marines and Army Airborne, with their own air and amphibious transport. In cold war, these forces would participate in stopping small-scale local aggression in situations where nuclear power is not necessary. They would undertake a variety of special operations such as commando work, combat reconnaissance, and local police action. During the exploitation phase of major war, the Special Mission Command would occupy key aggressor administrative centers. It should then be augmented by reservists trained in mopping up operations and military government duties; this is the logical role for reserve personnel in modern war. Universal military training should prove unnecessary, as voluntary military reserve programs can provide sufficient troops for this mission. Active and reserve forces should be manned in a democracy by volunteers attracted by career incentives, not by impressed and unwilling recruits.

Between our supply points in the U.S. and our dispersed military forces operating overseas, we should operate Military Logistics Commands composed in major part of air transport, with a supplementary surface supply system. The air units would provide the speed and mobility so necessary to mod-

ern war. A faster supply line permits earlier introduction of new military models. The cost of air transport would be partially offset by reductions in pipeline stocks. There could also be major savings in Army, Navy, and Air defense units now assigned to protect the vulnerable land and sea supply system, which moves matériel too slowly to have much effect during the decisive phase. The decisive phase must be fought from stocks in dispersed dumps. The vulnerable surface supply system is supplementary and of value only before D-Day and during the exploitation phase; in neither period is elaborate and expensive logistics defense necessary.

To give effect and direction to this structure, the Office of the Secretary of Defense, the Joint Chiefs of Staff and the Weapons Systems Evaluation Group must be substantially overhauled to rid them of present voting committees of representatives owing allegiance to existing military organizations. The military leaders in these offices and the top officers in the operational commands must divest themselves of loyalty and second responsibility to the service from which they came.

Once the National Security Council sets clear defense policies, the best means to carry them out can be determined objectively from results of maneuvers, the new war gaming techniques, and the military judgment of a reorganized Joint Chiefs of Staff. Techniques are now available to help judge the military value of various units in relation to their economic cost. But we will never shape our military means efficiently to fit our national purpose until the organization of the staff of the Secretary of Defense and the operating commands reflect military mission and not existing military means.

In the current debate there are two approaches to the problem of adequate defense vs. tolerable cost. One is to fix the level of military expenditures by deciding what the economy and preservation of free institutions can bear, hoping for the best no matter what the relative strength of Communist military power. The other is to pay the price asked by the present military organization for what it says is necessary for defense.

American taxpayers, who will buy six million new cars this year, are undoubtedly ready to pay the price of peace and freedom by giving up whatever part of their phenomenal material standard is truly necessary. In the last war, the price was readily paid because the American people were convinced the purpose was right and the means were necessary. But today, with every morning newspaper carrying a fresh dispute among military and Congressional leaders about which strategy and which forces are required, how can the people develop any confidence that the price asked is necessary?

Once our people are satisfied that our military objectives are sound, and once they know that our system of military management has been revised so that it can weed out unnecessary components and budget only for what is necessary, then there will be no question about footing the bill. To achieve acceptable security at reasonable cost, we must first have the right strategy and the right structure.

Fifth: THE ANNOUNCEMENT OF POLICY

TO AVOID OURSELVES of the political opportunities inherent in a military policy of Nuclear Punishment, a Presidential statement of the kind suggested needs to be made after we have the required intelligence capabilities. Military objections to announcement are conceivable if one's point of view stems from a secrecy complex and nuclear ignorance, the reflections of an uninformed nation fearfully trying to exist conventionally when we no longer hold the conventional balance of power. But if we approach world problems with the calm confidence to which our real strength entitled us, with a de-

termination to enforce peace justly in collaboration with allies, with the intent to seek our political objectives through peaceful means, there is every reason for publicizing the Punishment policy aspects of our intentions.

The masterful job that can be done by applying modern technology is adequate to solve most of our intelligence problems in ways far more effective than techniques in use today.

The announcement of Punishment policy would constitute the first realistic restraint on massive use of nuclear bombs. It is a measure without any prejudice to our military position.

No Need to Bomb Cities to Win War

It cannot be blocked by Soviet obstructionism, because we can take the step without agreement with the Soviets. Its usefulness does not depend on any confidence in Soviet intentions.

Also, it will be our first official renunciation of total warfare until unconditional surrender since our unfortunate commitment to that concept after the Casablanca Conference. The announcement will bring the sort of limitation on warfare which we want, but not limitations we do not want. One limitation we want is the avoidance of an exchange of counter-city blows with weapons of mass effect. There are two we don't want.

The first to be avoided is any prohibition on the use of atomic weapons unless concurrent with progressive disarmament of all weapons. As noted, the peace is enforceable today because U. S. nuclear superiority outweighs Soviet preponderance in conventional military strength. United States consent to nuclear disarmament without simultaneous disarming of Soviet and Chinese conventional forces would be in effect unilateral disarmament and a suicidal step for the whole Free World. The Free World can raise armies from a population approximating 300 million. The Communists can draw on 700 million. Western Europe holds the balance of steel production. Now our annual tonnage advantage over the Communists is on the order of two to one. With Europe in Communist hands, the ratio would be almost reversed. Yet there exists today a large body of well-intentioned opinion favoring purely atomic disarmament. If we were to renounce the use of nuclear weapons against cities unless ours were first attacked, there would be far less pressure for nuclear disarmament alone.

The second restraint on nuclear warfare which we do not want, but which is politically imposed on us today, is the inability to use nuclear weapons in peripheral warfare. Domestically, this restraint is partially the result of a lack of public understanding of the real nature of nuclear war. We fear what we do not understand. Our officials may believe that we also lack the fortitude to face the issue squarely.

As previously elaborated, military thrusts by overwhelming Communist manpower around the periphery of Europe and particularly Asia cannot be contained by conventional forces of the Free World. But our nuclear plenty and the cheapness of nuclear-equipped forces make it possible to destroy Communist troops in the battle and communications zones at the specific request of Allied nations and in partnership with limited European or Asian ground troops.

Nuclear weapons would have quickly ended aggression in Korea and Indo-China. They could insure the defense of Formosa. Again having in mind General Twining's dictum

that "the best way to prevent war is to be able to win," the emphatic threat to use them should be sufficient to deter Soviet, satellite, or Chinese military adventures in Europe or Asia.

As long as atomic warfare continues to conjure in the public mind only images of more Hiroshimas, the Free World is effectively prevented from punishing massed Communist manpower with nuclear weapons. But once we renounce the use of nuclear weapons against cities and adopt a policy of Nuclear Punishment suited to aggressive crime, we shall have taken the key step necessary to lift political restraints on the only effective counterbalance to Communist manpower we possess. After an announcement of restraint in counter-city warfare, we can begin to bring our nuclear plenty to bear, stabilizing the military situation around the globe.

The announcement would not constitute proclamation of a modern Monroe Doctrine. The new policy resembles the Doctrine in that military protection is extended to undefended areas, not the Western Hemisphere in this case but the entire Free World. But there the similarity ends. Under the proposed policy our protection would not be extended laterally, but in full partnership with allies.

The universal yearning for peace and the fear of war are so strong that announcement of our change from Massive Retaliation to Punishment policy should have broad appeal throughout the world. On both sides of the Iron Curtain, the spirit of resistance to the Soviets will be heightened by the promise of removing population, cultural and production centers from the stage of any World War III which resistance activities might risk. Captive peoples cannot but notice our distinction between them and the Kremlin's military instruments. Europeans will be encouraged to positive action by the shielding effect of our nuclear power. They can be freed from their presently paralyzing apprehensions of Soviet atomic attacks on European cities in the event of World War III. The Soviets will thus be denied opportunity for political blackmail now being used with telling effect against European countries who now fear that atomic annihilation awaits them unless they avoid doing anything that might in any way risk World War III—in other words, unless they remain divided, neutral and weak.

Such a demonstration of self-restraint with determination on our part would quiet damaging talk in Europe about atomic sabre rattling. It would deter movements in Europe and Asia which now believe that nuclear destruction can be avoided only through neutralism. Once convinced that a great strength has been harnessed to serve a morally sound policy, the uncommitted nations may well choose to support more actively the cause of the Free World.

Sixth: THE PURSUIT OF PEACE

X. The Drive for Disarmament

WHILE WE HAVE nuclear plenty and the Soviets have nuclear sufficiency, a policy of Nuclear Punishment can provide adequate security. But what of the next period? How do we enforce the peace when there is a stand-off in counter-city and counter-force strength?

A probable consequence of the present nuclear arms race is that the Soviets will achieve equality in nuclear power. Our present superiority would then no longer tip the balance in our favor. To make the argument clear, let us postulate a not unrealistic situation some years hence. Suppose that the Soviets can dispatch simultaneously several thousand nuclear weapons against our nuclear air installations and cities. Suppose one third explode on target.

In the age of Soviet sufficiency and U. S. plenty it has been

suggested that a nuclear detonation on their part would be considered the act of war which would trigger our destruction of his nuclear capability. But this is an inadequate definition of this act of war when we are faced with a thousand bombs simultaneously on target. Suppose we then define an act of war as the instant when they move bombs with nuclear charges aboard aircraft or missiles. Suppose further that we ourselves can detect this instant, or even that the U. N. has ground detection devices at U. S. and Soviet air bases to determine if they are brought together in violation of an international agreement to keep them apart except for pre-announced test purposes. The loaded bombs might be brought to the delivery vehicles, assembled and probably dispatched before we could get the signal, bring ours together, and fire. Even if we could "draw" as fast as the Soviets, their bombs would be airborne before we could hit their bases. We could

not rely on warning in time to blunt the attack in the USSR. The temptation for us to resort to preventive war before the Soviets achieve equality in nuclear power might be irresistible.

No matter how sophisticated the argument or what the estimate of time when the Soviets will have an equality of nuclear power, the situation remains the same. This generation must achieve world disarmament. A policy of Nuclear Punishment is the necessary prelude to disarmament, but it is no substitute. It merely buys time in which the world can organize disarmament. The better our counter-force capability, the more time we buy.

As a start toward a fresh approach to the disarmament issue, public attention can be drawn to the fact that Nuclear Punishment is in itself a policy of disarmament. It directs our offensive military power to disarm the aggressor in event of armed conflict, and thus it is a step fully consistent with our national purpose. As General Twining has said, "We can now aim directly to disarm an enemy rather than to destroy him as was so often necessary in warfare of the past." But military policy consistent with our disarmament objective is not enough. What of our political moves?

It is well established that a system of free inspection is a necessary pre-condition to disarmament. The Baruch plan for inspection of atomic plants ran aground in 1947 on Soviet dependence upon its Iron Curtain, which turned out to be an unshakable foundation of Kremlin power. Since then, proposals for inspection have been sterile. Possibilities exist, however, in a new concept.

Nuclear bombs in a stockpile can hurt no one. They must be delivered, and the delivery system constitutes the other half of the threat to peace. The means of delivery which can do real harm in the foreseeable future can be observed from the air.

During the last war, the air reconnaissance group I commanded kept count of numbers and types of aircraft on active German bases in a wide area through daily or bi-weekly photographic missions flown four to seven miles up. This is to say nothing of the daily reporting service on anti-aircraft and artillery positions which we provided to the entire First Army, and our reporting on moving targets in the communications zone and sometimes on the sea, which we kept under observation from dawn to dusk. Although unarmed, our losses were lowest among air groups in Europe. When the weather was bad, we sometimes flew under it, but this reduced our coverage. Since that time, various electronic eyes supplement visual and photographic observation, and night and bad-weather reconnaissance is becoming remarkably perceptive.

The factors in this sort of operation remain basically the same today even though the details have altered. Through an aerial surveillance agency of the veto-less Assembly, the United Nations could operate just such a system today over the air installations of nuclear powers. Observations affecting the peace could be publicized.

A precedent for organizing such an agency to serve the U.N. has just been established. On January 13, the Organization of American States requested the United States, a member country, to furnish reconnaissance aircraft for observation of fighting in progress in Costa Rica.

The Assembly might first try to obtain a convention signed by all members which would extend in a new dimension the three or twelve mile sovereignty limitation on national waters. The lower the sovereignty limit, of course, the better. But even twelve miles would present no problem, as British production model aircraft have already been reported flying this high. Regardless of the sovereignty limit, it would be desirable to seek a provision in the convention where the U.N. agency could dispatch an aircraft below 1000 feet, on particular occasions.

How would the U.S. and USSR react to such proposals?

We certainly should not object. The Soviets already know much about nuclear air targets in the U.S., through their agents in this country and through our magazines and newspapers. We know far less about targets in the USSR. We would have everything to gain from the operation of such a system.

As for the Soviets, they might or might not sign the convention. If not, and the U.N. majority so voted, the agency could still operate the aerial inspection system over the USSR with negligible losses. Techniques now available enable building vehicles to penetrate air defense systems with a very low probability of detection and interception. When threats to the peace are critical, such losses, if they occur, would be more than justified.

The United Nations might also consider developing surveillance satellites in a high priority program. When they are operating successfully, electronic receivers could be located in the surveillance center of the U.N. Assembly. These satellites, which would circle the world every few hours, would regularly scan all significant areas of the earth.

This course of U.N. action might not be objectionable to the Soviets, because aerial inspection would not disrupt the Iron Curtain controls so vital to a police state. But even if they do not sign the convention, the U.N. Assembly can proceed by majority vote so that inspection need no longer be frustrated by the Soviets.

Although the U.N. General Assembly might thus be able to assume some responsibility for reporting aircraft and missile counts and for warning the world of an impending nuclear air attack, we must also press for ground inspection of major weapons as another phase of U.N. surveillance. Aerial inspection might not be fool-proof enough to enable our agreement to progressive reduction of all major military forces. But it does establish the principle of inspection, and would prepare the way for a fully adequate inspection system. Only then can we proceed with progressive disarmament of all weapons not required for internal police purposes.

It is doubtful if the threat of mass attack by covert delivery is serious. Soviet agents can hardly undertake the delivery of a large number of bombs on target simultaneously. As long as our FBI and local police are alert to this danger, the chance of catching agents and disrupting the operation is good and this makes large scale covert delivery impractical.

The ultimate step in our disarmament drive must be enforcement of disarmament laws on individuals. Realization must first grow in the Free World that sovereignty rests in the individual. Under Free World concepts, it is the free and sovereign individual, and not the state, who delegates power to various levels of government. The only power which the majority of the world's free individuals want to delegate to international authority today is the power to enforce international peace. The world's peoples want to regulate other human activity in their own way through national governments, but the enforcement of peace is an acknowledged matter for world authority. Once armaments are reduced to a certain level, either as the result of international convention or World War III, disarmament can perhaps be enforced by international laws, courts and inspectors with police powers—all concerned with rearmament crimes by individuals. The free individual as the responsible sovereign must incur the punishment for transgression of disarmament laws.

This objective is perhaps unattainable as long as Communist philosophy holds that only the state, and not the individual, is sovereign. But there are many advantages to making detailed plans. We could state that disarmament law enforceable on individuals is one of our basic foreign policy objectives. In psychological warfare its formulation would help rally many uncommitted, neutral, and even captive peoples to the Free World cause.